## **POWELL COUNTY**

## (Powell County Water Service Area Map)

- Estimated 1999 population of 12,900--75% on public water
- Estimated 2020 population of 15,100--76% on public water
- 190 miles of water lines, with plans for 30 additional miles
- Estimated funding needs for public water 2000-2005--\$3,069,000
- Estimated funding needs for public water 2006-2020--\$1,749,000

Powell County had an estimated population of 12,853 (4,825 households) in 1999 with a projected population of 15,074 (6,191 households) in 2020. Public water is provided to about 75 percent of the county's residents. In areas of the county not served by public water, about 44 percent of the households rely on private domestic wells and 56 percent of the households rely on other sources. About 82 customers will be added to public water service through new line extensions in 2000-2020.

### Estimated Costs - Proposed Projects, 2000-2005

COUNTY/System		New		Rehab	Source	Treatment	Tanks/	Total
		Customers					Pumps	
	Miles	Number	Cost in \$1000	In	in	in \$1000	in	in \$1000
				\$1000	\$1000		\$1000	
POWELL								,
Stanton				560				560
Clay city				31				31
Powells Valley	6.0	28	343	555			180	1,078
Beech Fork W/D					700	700		1,400
TOTAL	6.0	28	343	1,146	700	700	180	3,069

#### Estimated Costs - Proposed Projects, 2006-2020

COUNTY/System		New		Rehab	Source	Treatment	Tanks/	Total
		Customers					Pumps	
	Miles	Number	Cost in \$1000	in \$1000				
POWELL								,
Stanton	2	15	74	375				449
Clay city				82				82
Powells Valley	21.5	39	968				250	1,218
Beech Fork W/D								`
Total	23.5	54	1,042	457			250	1,749

#### **PUBLIC WATER SYSTEMS**

Powell County has 5 public water systems: 4 community systems—2 municipal, Clay City Water System and Stanton Water Works; 2 water districts, Powell Valley Water District and

# WATER SERVICE AREAS POWELL COUNTY Kentucky

## Prepared By: Water Resource Development Commission

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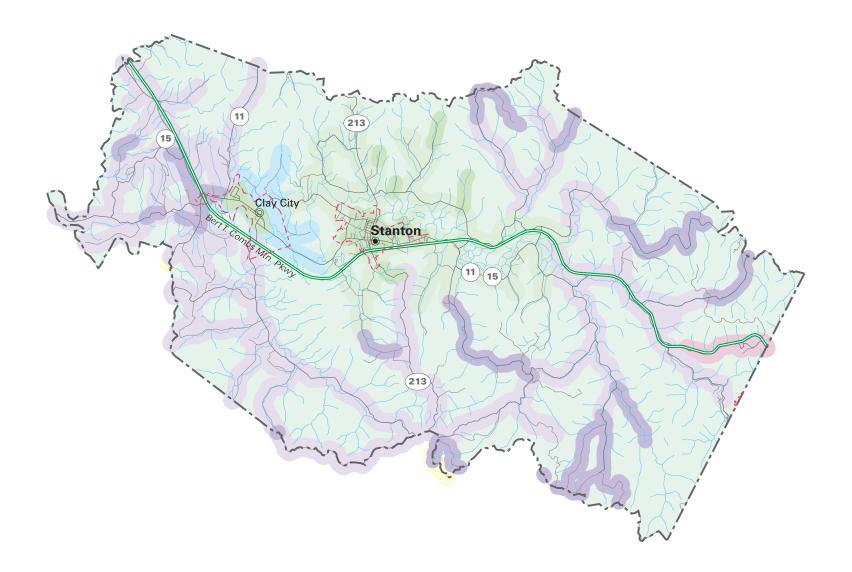




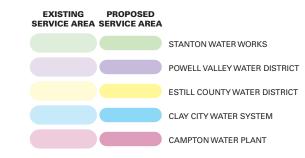




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#### **WATER SERVICE STATUS BY OWNER**



the Beech Fork Water Commission, which provides water to the community systems in the county; and 1 non-community system.

# **CLAY CITY MUNICIPAL WATER SYSTEM**

PWSID: System Type: Owner Type: Surface Source: Purchase Source: Well Source: Sells Water to:	COMMUNITY
Treatment Plant Capacity (MGD):	0.00
Percent Daily Average Production:	
Total Tank Storage Capacity (gallons):	
Total Service Connections:	
Number of Employees:	5.00
Treatment Operator Class:	2D
Distribution Operator Class:	
Customer Rate for 1,000 Gallons:	
O/M costs 1997:	Not available
O/M costs per Service Connection:	
Net Revenue 1997:	
Total Water Produced 1997 (gallons):	
Water Sold 1997 (gallons):	Not available
Unaccounted-for Water 1997 (%):	Not available
POWELL VALLEY WATER DIST	TRICT
I OWLLE VALLET WATER DIO	<u>illioi</u>
PWSID:	
	0990357 COMMUNITY
PWSID:	0990357 COMMUNITY
PWSID:	0990357 COMMUNITY
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PWSID:	0990357 COMMUNITY WATER DISTRICT
PWSID: System Type: Owner Type: Surface Source: Purchase Source: Well Source: Sells Water to: Treatment Plant Capacity (MGD):	0990357WATER DISTRICT
PWSID: System Type: Owner Type: Surface Source: Purchase Source: Well Source: Sells Water to: Treatment Plant Capacity (MGD): Percent Daily Average Production:	0990357 WATER DISTRICT 0.00
PWSID:	0990357WATER DISTRICT0.000.00
PWSID:	0990357WATER DISTRICT0.000.000.00
PWSID: System Type: Owner Type: Surface Source: Purchase Source: Well Source: Sells Water to: Treatment Plant Capacity (MGD): Percent Daily Average Production: Total Tank Storage Capacity (gallons): Total Service Connections: Number of Employees:	0990357 
PWSID: System Type: Owner Type: Surface Source: Purchase Source: Well Source: Sells Water to: Treatment Plant Capacity (MGD): Percent Daily Average Production: Total Tank Storage Capacity (gallons): Total Service Connections: Number of Employees: Treatment Operator Class:	0990357 
PWSID: System Type: Owner Type: Surface Source: Purchase Source: Well Source: Sells Water to: Treatment Plant Capacity (MGD): Percent Daily Average Production: Total Tank Storage Capacity (gallons): Total Service Connections: Number of Employees: Treatment Operator Class: Distribution Operator Class:	
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PWSID: System Type: Owner Type: Surface Source: Purchase Source: Well Source: Sells Water to: Treatment Plant Capacity (MGD): Percent Daily Average Production: Total Tank Storage Capacity (gallons): Total Service Connections: Number of Employees: Treatment Operator Class: Distribution Operator Class: Customer Rate for 1,000 Gallons: O/M costs 1997: O/M costs per Service Connection: Net Revenue 1997: Total Water Produced 1997 (gallons):	
PWSID: System Type: Owner Type: Surface Source: Purchase Source: Well Source: Sells Water to: Treatment Plant Capacity (MGD): Percent Daily Average Production: Total Tank Storage Capacity (gallons): Total Service Connections: Number of Employees: Treatment Operator Class: Distribution Operator Class: Customer Rate for 1,000 Gallons: O/M costs 1997: O/M costs per Service Connection: Net Revenue 1997:	

#### **STANTON MUNICIPAL WATER WORKS**

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System Type:	0990418
• ; • · · · ; • • · · · · · · · · · · ·	COMMUNITY
Owner Type:	MUNICIPAL
Surface Source:	RED RIVER
Purchase Source:	
Well Source:	
Sells Water to:	
Treatment Plant Capacity (MGD):	0.00
Percent Daily Average Production:	0.00
Total Tank Storage Capacity (gallons):	100,000.00
Total Service Connections:	
Number of Employees:	7.00
Treatment Operator Class:	2D
Distribution Operator Class:	
Customer Rate for 1,000 Gallons:	.Not available
O/M costs 1997:	.Not available
O/M costs per Service Connection:	.Not available
Net Revenue 1997:	.Not available
	Nick constiction
Total Water Produced 1997 (gallons):	. Not available
Total Water Produced 1997 (gallons): Water Sold 1997 (gallons): Unaccounted-for Water 1997 (%):	.Not available

#### **BEECH FORK WATER COMMISSION**

Beech Fork Water Commission is located in Powell County. The system serves a population of 10,712 and has 3 service connections--Stanton, Clay City, and Powells Valley. The water district has treatment capacity of 1,944,000 gallons per day. The water source is Beech Fork Reservoir.

#### OTHER SYSTEMS

D/V/CID.

#### **NATURAL BRIDGE STATE PARK**

Natural Bridge State Park is located in Powell County. The system serves a population of 1,800 and has 120 service connections. The state, non-transient, non-community system has treatment capacity of 144,000 gallons per day and storage capacity of 847,000 gallons. The water source is Mill Creek Lake.

#### PRIVATE DOMESTIC SYSTEMS

About 3,100 residents of Powell County rely on private domestic water supplies: 1,400 on wells and 1,700 on other sources.

In the main stem of the Red River valley in central Powell County, most drilled wells will produce enough water for a domestic supply at depths of less than 100 feet. In the larger creek valleys throughout the county, some wells will produce enough water for a domestic supply except during dry weather. In the upland areas of Clark County, which encompasses 60% of the county, most drilled wells will not produce enough water for a dependable domestic supply except along drainage lines that may produce enough water except during dry weather.

Throughout the county ground water is hard or very hard and may contain salt or hydrogen sulfide, especially at depths greater than 100 feet. A few springs supply sufficient quantities of water for domestic use.